L3 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1993:444515 CAPLUS
DN 119:44515
ED Entered STN: 07 Aug 1993
TI **Mediated** micro-glucose sensors using 2 μm **platinum** electrodes
AU **Yokoyama, Kenji**; Nakajima, Kenji; Uchiyama, Shunichi; Suzuki, Shuichi; Suzuki, Masayasu; Takeuchi, Toshifumi; Tamiya, Eiichi; Karube, Isao
CS Res. Cent. Adv. Sci. Technol., Univ. Tokyo, Tokyo, Japan
SO Electroanalysis (1992), 4(9), 859-64
CODEN: ELANEU; ISSN: 1040-0397
DT Journal
LA English
CC 9-7 (Biochemical Methods)
AB Glucose oxidase (GOD) and glucose dehydrogenase (GDH)-immobilized cylindrical microelectrodes were fabricated, and their characteristics were evaluated by using 1,4-benzoquinone and ferricyanide as electron mediators, resp. Each enzyme was immobilized in a photocrosslinkable polymer on a cylindrical microelectrode of 2-μm diameter A linear range in the calibration plot of the GOD-based microglucose sensor was observed to be wider than that obtained using a disk electrode of 1-mm diameter The mediated response of the 2-μm glucose sensor was compared with the response resulting from hydrogen peroxide detection. This result showed that a higher response and a wider linear range were observed at a highly concentrated mediator. For the GDH-immobilized 2-μm microelectrode, a much higher response was obtained when not only ferricyanide but also diaphorase were employed to reoxidize NADH produced by the enzyme reaction of GDH. The GDH-based microglucose sensor was unaffected by dissolved oxygen concentration

L1 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1990:627561 CAPLUS
DN 113:227561
ED Entered STN: 22 Dec 1990
TI Biosensor for microanalysis of body fluids
IN Kawaguri, Mariko; Fujita, Mayumi; Nankai, Shiro; Iijima, Takashi
PA Matsushita Electric Industrial Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G01N027-327
ICS G01N027-416
CC 9-7 (Biochemical Methods)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 02102448	A2	19900416	JP 1988-255161	19881011 <--
	JP 06052248	B4	19940706		
PRAI	JP 1988-255161		19881011		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 02102448	ICM	G01N027-327
	ICS	G01N027-416

AB A biosensor for microdetn. of, e.g., glucose in body fluids consists of a pair of a measuring electrode and an opposite electrode on an insulating C plate. The surface of the electrode system is coated with a layer containing redox enzymes, hydrophilic polymer, and electron acceptors. A heat-generating substance (e.g. MgCl2 that generates heat when dissolved in an aqueous solution) is attached to the enzyme layer. The heat generated decreases the effect of temperature on the anal. Diagrammatic views of the biosensor are presented.

	Type	L #	Hits	Search Text	DBs	Time Stamp
1	BRS	L3	13211	(amperom$ or current or electrochemical or electroanalytical or ampermo$) and diffusion	EPO; JPO; DERWENT	2004/08/17 15:30
2	BRS	L4	165	(amperom$ or current or electrochemical or electroanalytical or ampermo$) and (diffusion near2 coefficient)	EPO; JPO; DERWENT	2004/08/17 15:35
3	BRS	L5	117	(amperom$ or current or electrochemical or electroanalytical or ampermo$) and (heat$ or temp$) and (biosensor or (sensor and (reagent or enzyme or oxidase or oxidoreductase or dehydrogenase)))	EPO; JPO; DERWENT	2004/08/17 16:00
4	BRS	L6	117	5 not 4	EPO; JPO; DERWENT	2004/08/17 15:37